THE Cross SECTION

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Cloud seeding program ends September 30

It won't be long before the radar unit is powered down, the computers are stored away, and precipitation enhancement personnel prepare in return to Weather Modification, Incorporated (WMI) headquarters in Fargo, North Dakota.

September 30 is the final day of the 1997 precipitation enhancement program sponsored by the High Plains Underground Water Conservation District No. 1 and the Llano Estacado Weather Modification Association of New Mexico. The program has been in operation since May 30.

"We will continue to monitor crop conditions and maturity and the precipitation received across the area prior to the scheduled program cutoff date," said A. Wayne Wyatt, High Plains Water District manager.

"It is likely that a 'no-seed' order will be issued for much of our service area prior to September 30. Our County Committee members in each of the 15 counties will provide information that will help us determine when to stop seeding operations for this growing season."

After the final mission is flown, four independent evaluations of the precipitation enhancement program will be conducted to determine its benefits.

"One evaluation will be conducted by George Bomar, Senior Technical Specialist in the Watershed Management Division of the Texas Natural Resource Conservation Commission in Austin. This is required as part of the TNRCC's licensing and permitting process for weather modification activities in Texas," said Wyatt. "Dr. Gerald Jurica of the Texas Tech University Atmospheric Sciences Department, WMI, and the staff of the High Plains Water District will also evaluate the program."

Results of these evaluations will be published in a future issue of *The Cross Section*.

WMI personnel and equipment are scheduled to return in May for the start of the 1998 precipitation enhancement program.

Long-time water leader George W. McCleskey dies

George W. McCleskey, attorney, civic leader, and long-time Texas water leader, died August 8 at Methodist Hospital in Lubbock. He was 82.

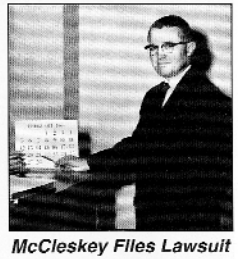
He was born June 13, 1915 in Rush Springs, Oklahoma and moved to Lubbock in 1939. McCleskey graduated from the University of Texas Law School the same year. He married Mary Belle Hall in February 1941.

He served in the United States Navy for three and a half years and was honorably discharged with the rank of Lieutenant Commander.

McCleskey may be best remembered for his work to obtain a cost-in-water income tax depletion allowance for farmers who irrigate on the Texas High Plains.

On February 21, 1961, McCleskey, along with lawyers J. Chrys Dougherty of Austin and Edwin Kahn of Washington D.C., filed a lawsuit against the U.S. Internal Revenue Service on behalf of Marvin and Mildred Shurbet of Floyd County. The lawsuit was a test case on behalf of the High Plains Underground Water Conservation District No. 1.

The Shurbet's lawsuit contended that ground water under the Texas High Plains is a natural deposit and is depleted just as oil, gas, gold, or any other natural deposit found in the area; and therefore, ground water should be included under the federal tax law allowing an income tax deduction for depletion of such resources.



McCleskey Flies Lawsuit

Lubbock attorney George W. McCleskey is shown as he filed the underground water depletion lawsuit against the U.S. Government on behalf of Marvin and Mildrod Shurbet of Floyd County. McCleskey points to the date the suit was filed in the U.S. District Court in Lubbock.

McCleskey Remembered For Role In Water Depletion Case

In this 1961 file photo, George W. McCleskey (standing second from left) listens as Water District Hydrologist W.L. Broadhurst (knocling) explains the oporation of a typical irrigation well installation to Tom McFarland, High Plains Water District manager; Bill Guyton, Austin hydrologist; Edwin L. Kahn, Washington D.C. attorney; Jack Soxton, Washington D.C. attorney; and J. Chrys Dougherty, Austin attorney.

The plaintiffs insisted that property owners, who paid more for their land because it had ground water in storage beneath it as compared to a similar tract with no ground water, should be able to deduct the cost of that water as it is exhausted.

In January 1962, the case, *Martin Shurbet, et ux. v. United States of America*, was tried at Lubbock in the U.S. District Court for the Northern District of Texas. A year later, U.S. District Court Judge Joseph B. Dooley ruled in favor of the Shurbets.

The case was appealed by the Federal Government on July 22, 1963 and went before the 5th Circuit Court of Appeals in New Orleans. The ruling allowing the cost in water income tax depletion allowance was unanimously upheld on June 7, 1965. In November 1965, the U.S. Internal Revenue Service published Revenue Ruling 65-296 stating that they would follow the decision of the U.S. Court of Appeals with regard to the depletion allowance.

For the past 32 years, the High Plains Water District has supplied the necessary water decline data to landowners within the District for use in claiming the cost-in-water income tax depletion allowance. Between 4,800 and 5,000 landowners requested water depletion data from the Water District for tax year 1996. In some years, combined savings on federal income taxes have totaled as much as three to five million dollars as a result of this service provided by the Water District.

"People across the High Plains and the State of Texas certainly will miss Mr. McCleskey's advice and counsel on water issues," said A. Wayne Wyatt, High Plains Water District manager. "He was a great supporter of this underground water conservation district and always provided whatever help was needed to promote the conservation of the area's water resources."

As a water leader, McCleskey served as President of Water, Inc.; Director of the Canadian River Municipal Water Authority; Chairman of the Water Committee of the West Texas Chamber of Commerce; Co-Chairman of the Underground Water Law Committee of the Environmental Law Section of the State Bar of Texas; Vice-

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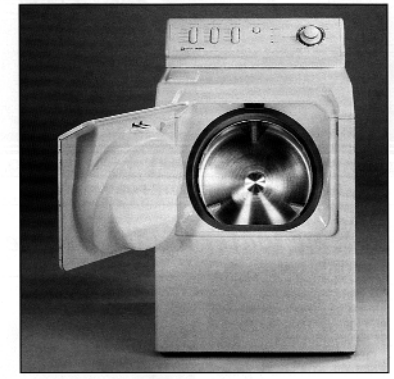
Horizontal axis technology may improve clothes washer efficiency

If you're like most people, you haven't stopped to consider the water use efficiency of your clothes washer. In most instances, you just toss in the dirty clothes, set the wash cycle and water temperature control, add detergent, and go about your business while the clothes wash.

Don't worry ... you're not alone.

For the most part, the basic technology, water use, and energy use associated with residential washing machines has received very little attention during the past 40 years.

As more efficient low-flow shower heads, faucet acrators, and toilets make their way into America's households, researchers and manufacturers are now examining methods to improve the water use efficiency of clothes washers.



A Different Angle

The Maytag Neptune is one of several horizontal axis clothes washers now being marketed across the United States. In addition to its use of water and energy-saving horizontal axis technology, the washer drum of the Maytag Neptune is also tilted at an angle to allow easier access to the clothing inside.

Vertical or Horizontal Axis?

Most U.S. and Canadian residential washing machines are top loading, vertical axis (central agitator) models that require the tub to be filled with about 39 gallons of water per load. However, horizontal axis machines in European residences and in U.S. and Canadian commercial installations use about one-third of the water required by vertical axis machines.

Rather than using a central agitator and submerging clothes in water, horizontal axis machines allow clothes to tumble in and out of the water. This results in cleaner clothes, longer fabric wear, less detergent use, and longer operating life of the machine. Some models reduce the energy needed to dry laundry since their higher spin speeds extract more water than current conventional clothes washers.

Amana, Frigidaire, Maytag, and Staber are among the U.S. manufacturers currently marketing horizontal axis washing machines.

Energy Star Partnerships

In recent years, marketing efforts for this type of washing machine have increased. One such effort involves partnerships between local utilities and the U.S. Department of Energy.

"The Energy Star Partnerships are designed to bring advanced, highly-efficient technologies into the marketplace and use volume sales to bring the price down so that people will adopt these technologies," said Sandi Edgemon, Research Engineer with Pacific Northwest National Laboratory in Richland, Washington.

Edgemon discussed the Energy Star Partnerships with members of the Texas Section American Water Works Association (TX-AWWA) Water Conservation and Reuse Division during their recent quarterly meeting in College Station.

With the volume purchase plan, appliance buyers gain access to the latest high-performance appliances and technologies at substantial savings. Also, manufacturers get increased markets for their products.

Water and Energy Savings

DOE statistics show that standard residential washers (including the washer, water heater, and dryer energy) use about 1,250 kilowatt hours of electricity (kWh) or 47 therms of natural gas, and 15,300 gallons of water per year for the average U.S. household.

Using a high-performance horizontal axis machine, electricity use is reduced to 725-775 kWh for an annual savings of 475-525 kWh; natural gas use is reduced to 24-27 therms for an annual savings of 20-23 therms; and water use is reduced to 4,500-9,700 gallons for an annual savings of 5,600-10,800 gallons.

According to Edgemon, an average U.S. single family residential customer using the horizontal axis washer would save $56 to $75 per year ($15 to $30 of that would be water and wastewater cost savings). "Payback time would be from three to four years for an incremental cost of $250 for the high performance clothes washer," said Edgemon.

"The retail cost for a high-efficiency clothes washer is now about $799-$1,000, while a less efficient standard washer sells for about $450. We want to narrow that gap and make the best technology available to consumers," she said.

City Of Austin Volume Purchase

The City of Austin's Planning, Environmental, and Conservation Services Department has signed up as the first local partner in a volume purchase of high-performance clothes washers.

As a partner in the volume purchase program, the City of Austin will implement a delivery mechanism for the washing machines, possibly offer financing or lease options to buyers, and educate consumers about the program.

Pacific Northwest National Laboratory is finishing the request for proposals for the Austin project involving:

- Part A sales including furnishing and delivery of high-performance washers to individual retail utility customers of the City of Austin (Complete delivery and warranty service is included).
- Part B sales involving volume delivery in truckload quantities to the jurisdictions of other local partners to be identified later.

Austin ECSD officials are hoping to place 1,000 high performance washing machines into the Austin market.

The successful bidder will receive assistance from the City of Austin in the form of program promotion through news releases and advertisements in the local print media; radio and TV PSAs promoting the program; fliers in the water utility service bill; posters and billboards in public areas; promotional material on city web sites; and promotional events with city officials.

Additional information about the high-performance clothes washer volume purchase program is available by contacting Sandi Edgemon at Pacific Northwest National Laboratory, PO Box 999, Richland, WA 99352-0999 or by calling (509) 372-4583.

Water leader George McCleskey dies

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Chairman of the State Bar Water and Air Conservation Law Section; and member of the Lieutenant Governor's Water Resources Advisory Committee.

In addition, he served two six-year terms as a member of the Texas Water Development Board in Austin.

McCleskey was honored as the Outstanding Water Conservationist of 1989 by the Texas Water Conservation Association.

He was also active in numerous local and state bar associations, including the Lubbock County Bar Association, the Texas Supreme Court's Advisory Committee on the rules of Civil Procedure, the Federal Judiciary Committee, and the State Bar Committee for the Administration of Justice.

In 1990, he retired as senior partner of the firm of McCleskey, Harriger, Brazill, and Graf, where he practiced law for more than 50 years.

Survivors include a son, George H. McCleskey of Lubbock; a daughter, Ann Trask of Austin; and six grandchildren.

A professorship chair is being established at Texas Tech University in honor of George W. McCleskey.

Persons interested in making contributions to establish the chair can contact Don Graf at (806) 796-7316, or A. Wayne Wyatt at (806) 762-0181.

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